maintained within PDA-defined limits). Simulations were conducted in CORE diabetes model, which is a Markov model built on the base of published clinical trials and encompasses over a dozen of diabetes complications. The model was extensively validated and allows for reliable estimation of costs and outcomes associated with diabetes. Model inputs were adapted to Polish setting. Economic analysis was conducted in lifetime horizon, costs and outcomes were discounted (5% and 3,5%, respectively). Cost acceptability threshold in Poland is 25 511 euro per QALY gained. **RESULTS:** John's QALY is 0,3 lower that QALY of Peter. Treatment of John's complications is 400 euro more expensive as compared to Peter. If willingness to pay (WTP) equals to €7500 euro per QALY, yearly costs of Peter's treatment may be 250 euro higher that John's. If WTP is €15,000, Peter's treatment may be €450 more expensive that John's and if WTP is €25,000 the difference in treatment costs may be as high as 725 euro. **CONCLUSIONS:** DM2 treatment along with PDA recommendations may be cost-effective provided additional costs do not exceed €725 per year.

PDB41

THE COST-EFFECTIVENESS OF GETTING TO GLUCOSE, BLOOD PRESSURE, AND LIPID GOALS IN PATIENTS NEWLY DIAGNOSED WITH TYPE 2 DIABETES MELLITUS (T2DM) AND YOUNGER THAN FIFTY IN SWEDEN

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INTRODUCTION: Good T2DM management requires not only good control of blood glucose, but also blood pressure and serum lipid levels. Although data from the Swedish National Diabetes Registry indicates that more patients have attained recommended levels of these biomarkers over time, a sizable proportion fails to meet all of these goals. **OBJECTIVES:** Assess the cost-effectiveness of intensifying therapy to achieve Swedish-specific treatment goals for HbA1c, systolic blood pressure (SBP), and LDL versus usual care for patients newly diagnosed with T2DM and younger than fifty. **METHODS:** We used the Economic and Health Outcomes (ECHO)-T2DM model, a Markov-based micro-simulation model, to simulate the lifetimes of 500 cohorts of 500 hypothetical patients under two different scenarios: 1) treatment to maintain target goals for HbA1c, SBP and LDL; and 2) treatment to maintain levels observed empirically in Sweden. Pharmacotherapy treatment pathways for the control of hyperglycemia, hypertension and dyslipidemia followed Swedish guidelines and were identical in the two scenarios. The costs of pharmacotherapy and medical events were obtained from Swedish data. **RESULTS:** Treatment to HbA1c, SBP and LDL goals versus treatment to observed levels in Sweden resulted in a small QALY gain (0.13) and medical cost-savings of SEK 3552(€395). Spending on glucose-lowering agents, anti-hypertensives, and lipid-lowering agents was increased by SEK 4136(€460), SEK 4864(€540) and SEK 2390(€265), respectively. Costs due to micro- and macrovascular complications were reduced by SEK 5731(€637) and SEK 9522(€1058), respectively. **CONCLUSIONS:** For patients newly diagnosed with T2DM and younger than fifty in Sweden, intensifying therapy to maintain target glucose, blood pressure, and lipid levels resulted in increased spending on pharmacotherapy, however, spending on micro- and macrovascular events was reduced by a greater degree. These results suggest that allocating more resources toward the attainment of these goals may be welfare-improving.

PDB42

ECONOMIC EVALUATION OF RECOMBINANT HUMAN FSH IN COMPARISON WITH URINARY HMG IN ASSISTED REPRODUCTION IN THE GREEK SETTING

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OBJECTIVES: To compare the cost-effectiveness of Follitropin Alpha (Gonal-F®), which is a recombinant FSH, with a urinary highly purified hp-FSH (Menopur®) used in assisted reproduction in Greece. **METHODS:** A decision tree in combination with a Markov model was constructed to assess the clinical and economical impact of comparators for three consecutives cycles. Transition probabilities for all stages of a treatment cycle (i.e, cancelled ovum retrieval, successful recovery of oocytes etc) were derived from literature and validated by clinical experts. Cost components such as "initial treatment cost", cost of "oocytes", "oocyte pick-up", "fertilization", "transfer", "cryo preservation" and "frozen- thawed embryo transfer (FET)" were derived from the electronic databases of selected private and public clinics. The average number of units used per IVF and the rate of adverse events were based on the literature. Drug prices and reimbursement tariffs, were obtained from the "Government Gazette" and valued at 2011 prices. A probabilistic sensitivity analysis was performed to deal with uncertainty and to construct variability measures. **RESULTS:** There was a statistically significant difference in favor of the r-FSH arm compared to hp-HMG, which is associated with 52 more life births (95%CI: 26-78, p-value<0.001) per 1,000 patients. The cost per life birth was estimated at €16,906 (95%CI: €16,347 – €17,516) and €17,286 (95%CI: €16,740 – €17,845) in the r-FSH and hp-HMG arms, respectively. The cost per IVF was estimated at €4,365 (95%CI: €4,205 – €4,506) in the r-FSH and €3,815 (95%CI: €3,661 – €3,953) in hp-HMG arm, indicating a difference at €550 (95%CI: €365 – €730, p-value<0.001). The incremental cost per life birth (ICER) for r-FSH versus hp-HMG was estimated at €14,540 (95%CI: €10,509 – €21,868), while the incremental cost per life year was estimated at €4,153 (95%CI: €2,038 – €6,233). **CONCLUSIONS:** r-FSH may represent a cost-effective choice compared with a urinary hp-FSH (Menopur®) used for ovarian stimulation in the Greek setting.

PDB43

THE ECONOMIC IMPACT OF WEIGHT LOSS IN PATIENTS NEWLY DIAGNOSED WITH TYPE 2 DIABETES MELLITUS (T2DM) AND YOUNGER THAN FIFTY IN SWEDEN

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OBJECTIVES: This study estimated the effect of weight reduction on long-term outcomes and associated direct medical costs for patients newly diagnosed with T2DM and less than fifty years old in Sweden. **METHODS:** We simulated the lifetimes of 500 cohorts of 1000 patients with characteristics based on the Swedish National Diabetes Register using the Economic and Health Outcomes (ECHO)-T2DM model. All patients were assumed to increase weight over time (0.23 kg per year) however, half of the patients were assumed to lose 5 kg in the first year, so that a 5 kg differential was maintained. The effect of weight on T2DM complications was modeled using risk equations from the UK Prospective Diabetes Study, wherein weight is only a direct determinant of the risk of congestive heart failure (CHF). The risks of stroke and myocardial infarction are affected only indirectly via their linkage with CHF, and mortality risk is affected only indirectly via macrovascular event history. Weight change was assumed to impact QALYs by an amount reported in the T2DM-specific CODE-2 study. Pharmacotherapy was administered according to Swedish recommendations and Swedish cost data was used for medical events and pharmacotherapy. **RESULTS:** A weight loss of 5 kg resulted in cost-savings of SEK 654 (€69) over an average of 17.1 years, mainly attributable to reductions in CHF incidence. Life years increased marginally; QALYs, however, increased more substantially (0.18). **CONCLUSIONS:** At a relatively conservative willingness-to-pay threshold of SEK 250,000 (€26,540), an intervention that resulted in a one-time weight loss of 5 kg would be welfare improving at a cost of up to SEK 45,654 (€4,846) over 17.1 years. As this simulation conservatively excluded a number of other benefits of weight loss (e.g., effects via improved lipids, blood pressure and reductions in other weight-related illnesses), the true economic value is likely greater.

PDB44

AN ECONOMIC EVALUATION OF THE USE OF PIOGLITAZONE IN ITALY USING PROACTIVE

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OBJECTIVES: The aim of this economic evaluation was to test the hypothesis that the clinical benefits observed with pioglitazone in the PROactive Study will lead to economic benefits in terms of reduced macrovascular complications costs and insulin treatment in Italy (the trial compared standard of care + pioglitazone versus standard of care alone). **METHODS:** Two analyses were undertaken; within trial analysis and life-time simulation. The PROactive study provided the clinical and resource utilization data to estimate the cost-effectiveness of pioglitazone in the within trial analysis and was the basis for the secondary analysis which undertook a life time simulation using a modified version of the validated CORE diabetes model. CODE-II utility values were used for the base case. Due to the distribution system of pioglitazone in Italy, two different prices were used; the public price paid by the retail market (€2.11 per patient per day) and the ex-factory price discounted by 25% (€ 0.96 per patient per day). Costs and health gains were discounted at the joint rate of 3%. **RESULTS:** The incremental utility gain in within trial analyses was 0.0191, the incremental event and medication costs in the public price scenario were €842 leading to an ICER of €43,996 per QALY. In the lifetime simulation model the incremental utility gain was 0.149, the incremental event and medication costs in the public price scenario were €3,783 leading to an ICER of €25,426 per QALY. In the ex-factory price discounted by 25% scenario the medication costs were lower leading to the inclusion of pioglitazone in treatment being dominant in both analyses. **CONCLUSIONS:** In the Italian setting reduced costs for macrovascular complications and insulin treatment leads to the inclusion of pioglitazone in treatment being within standard cost-utility thresholds and is therefore an effective use of health resources.

PDB45

COST-EFFECTIVENESS OF TRANSFERRING TYPE 2 DIABETIC PATIENTS FROM NEUTRAL PROTAMINE HAGEDORN (NPH) TO DETEMIR IN PORTUGAL SETTINGS

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OBJECTIVES: To estimate the long-term cost-effectiveness of transferring type 2 diabetes patients to an insulin detemir regimen therapy from a Neutral Protamine Hagedorn (NPH) insulin regimen in the Portuguese routine clinical practice. **METHODS:** A computer simulation model "CORE Diabetes Model" was used to make long-term projections of clinical outcomes and direct medical costs based on short term findings from the European cohort in the PREDICTIVE trial. Therapy conversion to insulin detemir was associated with a reduction in glycosylated haemoglobin (HbA_{1c}) by 0.2% ($p < 0.05$), mean body weight was reduced by 0.7 kg ($p<0.01$) and the incidence of total hypoglycaemia decreased from 11.7 to 3.0 episodes per patient/year ($p < 0.0001$). Events were projected for a time horizon of 30 years. The cost analysis takes the perspective of the Portuguese National Health System. **RESULTS:** Therapy conversion to insulin detemir plus OADs improves life expectancy by 0.056 years and quality-adjusted life years (QALY) by 0.462 compared to NPH insulin plus OAD. The incremental cost effectiveness ratio cost per life years gained and per QALY gained with insulin detemir plus OADs treatment as compared to NPH insulin plus OADs is 3,239€ and 393€ respectively. Type 2 diabetes